

Notice of Allowability

Application No.

10/753,398

Examiner

Igor Kershteyn

Applicant(s)

ISHIDA, SATOSHI

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ The drawings filed on 09 January 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 3/1/05, 1/9/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

Reasons for allowance

The following is an examiner's statement of reasons for allowance:

The instant invention is deemed to be directed to an unobvious improvement to a master cylinder, a seal retainer, and a method for installing a seal retainer in a master cylinder over U.S. Patent No. 5,187,934 which teaches a master cylinder 20 having a master piston 44 slidably received in a cylinder bore, with a plurality of annular grooves formed around an inner wall of said cylinder bore 27, comprising: an annular seal member 38 having an annular groove of U-shaped cross section formed on one end face thereof, said seal member 38 being placed in such a manner that the annular groove of U-shaped cross section is opened forward in said cylinder bore 27; and a substantially annular seal retainer 36 placed in front of said seal member 38 for restricting at least axial movement of said seal member 38, said seal retainer 36 including a substantially annular lifted wall portion formed to extend axially into the annular groove of said seal member 38, and a substantially annular step portion formed on an inner periphery of said lifted wall portion, for contacting an open end face of the annular groove of said seal member 38, wherein said annular grooves includes an annular transfer groove and an annular hold groove having a larger diameter than said annular transfer groove, formed in parallel with each other toward one open end of said cylinder bore 27, and wherein said seal member is placed in said annular hold groove.

Regarding claim 1, the improvement comprises said seal retainer being reduced in diameter by radial pressing force produced when said seal retainer is received in said

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cylinder bore, and restored when the pressing force is released and said seal retainer is received from the other open end of said cylinder bore to be placed in said annular transfer groove, with said seal retainer reduced in diameter, and wherein said seal retainer is transferred from said annular transfer groove to said annular hold groove, and said seal retainer is restored in such a state that said lifted wall portion extends into the annular groove of said seal member.

Regarding claim 3, the improvement comprises the seal retainer is reduced in diameter by pressing force produced when said seal retainer is received in said cylinder bore, and said seal retainer is restored, when said seal retainer is received in said annular hold groove through said annular transfer groove.

Regarding claim 6, the improvement comprises inserting said seal retainer from the other open end of said cylinder bore to be placed in said annular transfer groove, with said seal retainer reduced in diameter, said seal retainer including a substantially annular lifted wall portion formed to extend axially into the annular groove of said seal member, and a substantially annular step portion formed on an inner periphery of said lifted wall portion, for contacting an open end face of the annular groove of said seal member; and transferring said seal retainer from said annular transfer groove to said annular hold groove, so that said seal retainer is restored in such a state that said lifted wall portion extends into the annular groove of U-shaped cross section of said seal member.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of thirteen patents.

Wallace (2,815,970) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

Martini (4,141,129) is cited to show a method of installing a seal member.

Duval et al. (4,222,161) is cited to show a method of installing a seal member.

Baron et al. (4,610,834) is cited to show a method of installing a seal member.

Ramirez (4,706,970) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

Bacardit (4,964,274) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

Ishihara (5,431,014) is cited to show a sleeve member having a wall portion extending into a groove of U-shaped seal member but fails to teach the sleeve member installed into an annular hold groove.

McBride (6,098,987) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the sleeve member installed into an annular hold groove.

Castelman et al. (6,108,884) is cited to show a method of installing a seal member.

Dangel et al. (6,581,380) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

Hennemann et al. (6,786,489) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

Heller et al. (6,769,254) is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the retainer reduced in diameter during installation.

European Patent Document 0191919 is cited to show a seal retainer having a wall portion extending into a groove of U-shaped seal member but fails to teach the sleeve member installed into an annular hold groove that has a diameter smaller than seal groove.

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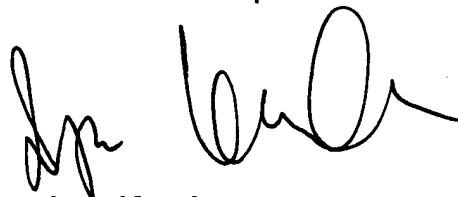
Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is **(571)272-4817**. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK
April 1, 2005



**Igor Kershteyn
Patent examiner.
Art Unit 3745**



**EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
4/1/05**